

**WHAT IS CLAIMED IS:**

1. A transmission oil cooler for a vehicle, comprising:  
a pair of tube plates, each of which has an oil inlet and an oil outlet at ends  
thereof;

5 an inner fin mounted in an oil flow passage formed between the tube plates for  
absorbing heat emitted from the oil and transferring the absorbed heat to the tube plates;  
and

a pair of stoppers, each of which is respectively mounted on an edge portion of  
the inlet and the outlet for fixing the ends of the inner fin thereto.

10 2. The transmission oil cooler of claim 1, wherein the oil inlet and the oil  
outlet are shaped as a cup.

15 3. The transmission oil cooler of claim 2, wherein the inner fin is bent  
along an edge portion.

4. The transmission oil cooler of claim 3, wherein each stopper  
comprises:

20 a supporting portion connected to an inside of the cup-shaped inlet and the  
cup-shaped outlet; and

a lip portion protruding from the oil inlet and the oil outlet for respectively  
receiving ends of the inner fin.

25 5. The transmission oil cooler of claim 4, wherein the ends of the inner  
fins is are concave-shaped, and the lip portion for receiving the ends of the inner fin is  
convex-shaped corresponding to the shape of the ends of the inner fin.

6. The transmission oil cooler of claim 5, wherein the stopper and the  
tube plate are formed as one body.